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Inflation and Paper Currency Denominations

an exposition of inflation and an inquiry into paper currency denominations, the apparent scarcity of some notes and also their relation to price levels.

by Richard A. Banyai

I

This paper will define and explain the process of inflation in Section II. There will be developed in Section III the writer's theory as to why there is at times an apparent scarcity of paper currency for study by numismatists. Regarding this latter concept of note scarcity, it is ofen stated by some students of paper currency that there are times when particular notes are difficult to obtain from nations which had been or are experiencing a severe, by definition, inflation. In Section IV there will be developed a more technical aspect of paper currency denominations in relation to the price level. This will be of interest not only to students specialising in inflationary issues, although it is applicable, but also of interest to numismatists who generally specialise in paper currency.

The exposition of the inflationary process in Section II will be generally an empirical one as it would be rather useless to develop it in the mathematical terms of the economist. Not all students of numismatics have the detailed background of the economist. Therefore a clear and practical elaboration will be given.

II

There is more to the concept of inflation than meets the untrained eye. It involves research and analysis of cases and variables involved in these cases to generally determine the cause and effect.

Inflation, in this paper, will be defined as a rising price level of X% per period of time, which is the generally accepted definition in the financial world.

In an earlier paper by the writer, referred to at the end of this paper, the concept of expectations was developed as the main psychological variable in an inflation. That is inflation is not a strict mechanical relationship whereby an increase of X% in the money supply automatically elicits an elevation in the price level by X%. Rather, it depends upon the psychology of the masses, among other variables.

Below are quotations from the earlier paper.

> "The human factor is in essence, expectations. A group of businessmen, for example, perceive an increased demand for their goods and services. Labour, in turn, would want an increased cut of the profits and labour costs would rise. Again, the entrepreneur will recoup, at the expense of the consumer, his losses to labour. . . ."
>
> ". . . The government (and in most instances of extreme inflation this is true) often creates more trouble by bidding against private firms for necessary goods and services. This will tend to raise the cost of production through added demands on land, labour, and capital. When the entrepreneur becomes aware of this increased demand, he will naturally attempt to profit from it by hiking his charges still more, thereby setting off yet another round of demands from his workers. . . ."
>
> "Without this human factor (which can be called the expectation factor), the government and/or central bank could perhaps flood its economy with paper notes, or even metallic money, in excess of the nation's industrial and agricultural capacities with no noticeable ill-effect. In actuality, this is the way in which totalitarian states finance their expenditures for goods and services. They control the expectation factor by a process called repressed inflation, or wage and price controls. With legal controls, the regime can dampen its people's desire for profit while it issues and spends currency within its borders as needed."

The money supply is indeed an important factor and added injections of large quantities are required to sustain the inflationary spiral.

Cases of extreme inflation, galloping and hyper-, reveal large quantities of currency in circulation and large quantities being injected as fuel either steadily or in enormous spurts to sustain the flames of the inflationary debacle. However, it must be kept in mind that often times the psychology of the situation is such that the increased quantities of currency do not keep up with the rise in the price level index, that is the value in monetary unit terms of the aggregate money supply (coins, paper currency, bank deposits) does not keep up with the unit rise in the price level. For example, in China (mainland) from 1937 to 1947 the calculated money supply increased approximately 15,000% but the price level rose about 100,000% during the same period.

The price level is generally a psychological reaction to the economic environment and the supply of money a most important catalyst reacting on this index at times in a mild way and at other times in a most violent way. Nevertheless, the money supply is an important factor but the psychological factors, in the writer's opinion, are the more important variables.

At this stage the three main forms of inflation will be described below.

(1) Creeping Inflation is a price level rise annually of about 2% to 4% depending upon the nation involved.

(2) Galloping Inflation is a rapid rise in prices of X% per period of time which is often calculated monthly due to the magnitude of some cases. This stage is generally caused by a lack of confidence in the stability of the monetary unit or the political situation or both. If trends continue, this tends to elicit a further expectation of currency depreciation and/or political chaos. Thus depreciation of the monetary unit is accelerated as the unfavourable expectations of the masses grows and the price level continues its erratic or steady rise which further elicits a flight from money into goods, e.g. land, jewellery, art objects, etc. and speculation.

(3) Hyper-Inflation is the ultimate in the inflationary spiral and often labelled as a chapter in the book of Economic Pathology. This is the stage at which, generally, the printing presses of government X are running, figuratively and at times literally, full steam ahead. The plethora of paper currency is such as to inject high-powered fuel into the already roaring flames of the inflationary spiral.

At this stage it is of necessity for the government to pay for its goods and services at a level of prices higher than last week, higher than yesterday, and in extreme cases, higher than the previous hour. Naturally this entails a general increase in the quantity of the circulating medium. However, the depreciation of the monetary unit is often times so rampant that the previous currency issues have soon lost their value. Usually the psychology of the situation is such that the price level far outstrips the increased quantity of circulating media in terms of monetary unit valuation.

The above general exposition of inflation and its stages of magnitude can of course be qualified in certain cases. But in general, this is the course inflation takes.

Naturally there is the factor of supply and demand, bottlenecks in production and distribution, etc. which have important effects at times on the price level.

Nevertheless, both the quantity of money and the supply and demand factors are important variables influencing the expectations factor of the masses and vice versa.

In his 1924 edition of "Monetary Reform", the late economist John Maynard Keynes described the general course of events as follows:

"Experience shows that the public generally is very slow to grasp the situation and embrace the remedy. Indeed, at first there may be a change of habit in the wrong direction, which actually facilitates the government's operations. The public is so much accustomed to thinking of money as the ultimate standard, that, when prices begin to rise, believing that the rise must be temporary, they tend to hoard their money and to postpone purchases, with the result that they hold in monetary form a **larger** aggregate of real value than before. And, similarly, when the fall in the real value of the money is reflected in the exchanges, foreigners, thinking that the fall is abnormal and temporary, purchase the money for the purpose of hoarding it.

"But sooner or later the second phase sets in. The public discover that it is the holders of notes who suffer taxation and defray the expenses of government, and they begin to change their habits and to economise in their holding of notes. They can do this in various ways: (1) instead of keeping some part of their ultimate reserves in money they can spend this money on durable objects, jewellery or household goods, and keep their reserves in this form instead; (2) they can reduce the amount of till-money and pocket-money that they keep and the average length of time for which they keep it, even at the cost of great personal inconvenience. (Footnote: In Moscow the unwillingness to hold money except for the shortest possible time reached at one period a fantastic intensity. If a grocer sold a pound of cheese, he ran off with the roubles as fast as his legs could carry him to the Central Market to replenish his stocks by changing them into cheese again, lest they lost their value before he got there; thus justifying the prevision of economists in naming this phenomenon 'velocity of circulation'! In Vienna during the period of collapse, mushroom exchange banks sprang up at every street corner, where you could change your Krone into Zurich francs within a few minutes of receiving them, and so avoid the risk of loss during the time it would take you to reach your usual bank. It became a seasonable witticism to allege that a prudent man at a cafe ordering a bock of beer should order a second bock at the same time, even at the expense of drinking it tepid, lest the price should rise meanwhile); and (3) they can employ foreign money in many transactions where it would have been more natural and convenient to use their own.

"By these means they can get along and do their business with an amount of notes having an aggregate real value substantially less than before. For example, the notes in circulation become worth altogether \$20,000,000 instead of \$36,000,000, with the result that the next inflationary levy by the government falling on a smaller amount, must be at a greater rate in order to yield a given sum.

"When the public take alarm faster than they can change their habits, and, in their efforts to avoid loss, run down the amount of real resources, which they hold in the form of money, **below** the working minimum, seeking to supply their daily needs for cash by borrowing, they get penalised, as in Germany in 1923, by prodigious rates of money-interest. The rates rise . . . until the rate of interest on money equals or exceeds the anticipated rate of the depreciation of money. Indeed it is always likely, when money is rapidly depreciating, that there will be recurrent periods of scarcity of currency, because the public, in their anxiety not to hold too much money, will fail to provide themselves even with the minimum which they will require in practice."

Keynes has developed this concept well.

His analysis, if analysed carefully, makes it rather obvious that when the masses realise what is occurring, their expectations about the future grow dim and they draw down on and spend their cash balances as rapidly as possible thus increasing the velocity of circulation of the monetary unit. This in turn prompts the entrepreneur to raise his prices to meet the added costs of rent, labour and capital which are generally passed on to him by other businessmen including his own desire for gain. This is noted especially during a galloping inflation, and reaches its ultimate stage during a hyper-inflation. During such a period, currency changes hands quite rapidly as people spend their money so as not to get stuck with a monetary unit of lessening purchasing power. The price level increases to new levels, and the government, in turn, must increase its monetary outlays to pay for the goods and services it needs at the higher prices. This generally entails an increase in the quantity of money and resorting to the printing presses. There is a qualification in such extreme cases and that is the government has a difficult time collecting taxes from the populace to defray most of its expenses either because it cannot or because it feels that the easier way out is to issue more currency, preferably in paper form. This situation usually occurs in a nation during or after a war or during a state of chaos.

III

The writer has a theory regarding the correlation between an inflation, especially of type (2), and the general increase in the

denominations of paper currency and the general scarcity of some specimens.

This may be an answer, or at least food for thought, as to why there is an apparent scarcity of some notes for study by numismatists and especially students of paper currency. Of course this shall be qualified by stating that this is only a special case and probably not applicable to all inflations of the galloping type or for that matter even the milder types. It indeed would be bold to project the theory to a type (3) or hyper-inflation. It is best to keep to the middle ground until further evidence materialises to substantiate a projection into the realm of hyper-inflation.

A student of paper currency once put forth the question:

> "With the many inflations that have taken place, e.g. in Latin America, why is it difficult at times to obtain specimens of paper currency from these areas? One would think that there would be an overabundance of notes available for research purposes. Instead, they are hard to find, why?"

This posed an interesting problem of interpretation.

It is realised that there are many variables involved in the relative abundance and scarcity of bank notes or more generally, paper money. There are factors of destruction of the excess stocks of notes by government or central bank, hoarding of bundles of notes by local dealers for later sale to collectors, and notes being kept as souvenirs by tourists or local citizens. However, for the purposes of this section these minor, but often times important, variables will not be assumed. Our major concern is with government-treasury and central bank operations with the money supply during the severe inflation, type (2), and its possible effect on the availability of some notes to numismatists and students of paper currency.

If one were to analyse the situation carefully, a number of interesting possibilities would appear. For example, there are very good reasons why some galloping inflations have not produced the abundance of paper currency expected.

Below are examples.

(1) A nation, hypothetically Brazil, is experiencing a rapid depreciation of its monetary unit and accordingly prices are rising by 75% to 100% per annum. After a period of time and several government deficits later there is evidently a redundancy in the money supply, mainly paper currency. However, even though some specimens exist in a substantial quantity many multiples more have been retired, more than likely by the central bank, and notes of a higher denomination issued in their place to compensate for the higher price level.

For example, theoretically assume that the paper currency supply is at a level of 10,000,000,000 notes of the denomina-

tion of 10 Cruzeiros each. The central bank to facilitate commerce and to compensate for the elevation of the price level which has quadrupled in X period of time will retire the old supply of ten milliard notes of 10 Cr. denomination. In its place the bank will reissue 10,000,000,000 notes of 50 Cruzeiros denomination each. Thus the bank is keeping somewhat ahead of the rise in prices by issuing a money (note) supply of apparently more value, at least in terms of the monetary unit. Now there is generally, at least for the time being, the same quantity of notes in circulation as before but of a higher denomination to cope with the degree of inflation of the price level.

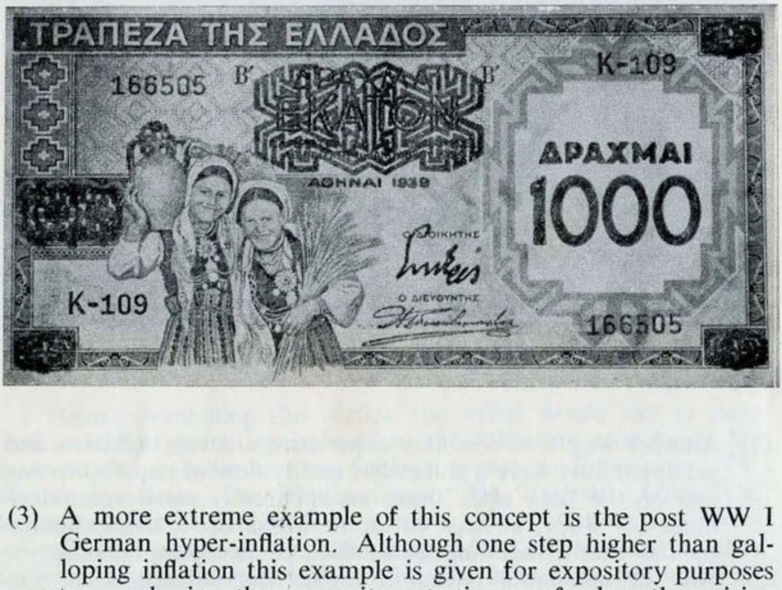
Of course the example is hypothetical and evidently the supply of currency would become quantitatively larger each time of issue with each successive rise in the price index. But in such an example in a dynamic sense the supply of paper currency would not actually grow quantitatively as large as it theoretically would if the denominations of bills were raised with each issue.

The amount of continuous denomination notes, i.e. constant 5, 10, 20, 50 100 X unit bills circulating in all stages of the inflation, would grow larger quantitatively with each successive issue to compensate for the brisker trade at higher prices if larger denominations were not issued.

However, the growth in the quantity of currency would be somewhat slower, depending of course on the magnitude of the inflation, if constantly raised denomination currency were issued, e.g. 100, 500, 1,000, 10,000 X unit bills in common circulation for period A, 1,000, 50,000, 1,000,000 X unit bills for common circulation in period B, ad infinitum with each successive inflation of the price level. This would indeed ease the burden of carrying multiple quantities of small value bills for common transactions and of course speculation. The evidence available indicates that the burden is to a degree relieved by the issuance of the higher valuation notes to replace a multiple of smaller ones for the same transactions.

(2) A very substantial example is Greece from 1938–1941 which is the beginning of the galloping inflation that carried Greece through a hyper-inflation and finally forced the collapse of the Greek Drachma in late 1944. However, during the above 1938–1941 period the early stages of galloping inflation gripped this Mediterranean nation. During the early phases, circa 1939, the Bank of Greece overprinted many of its notes with higher denominations to compensate for the abrupt increase in the price level. Statistics regarding the Greek money supply for this period reveal a multiple increase in the money supply of 800%. But this is in value of money stock and not necessarily note issue. Therefore notes of lower denominations

were overprinted with higher denominations for circulation and to facilitate trade. Even though more notes were issued the money supply evidently did not at first increase quantitatively as theory would lead one to believe if denominations remained continuous. They did not remain continuous. The overprinted notes of older stock circulated alongside the newer higher denomination notes. Economical use of the money supply where possible seems to be the case of Greece during this early phase of inflation. Note below the example of the older 100 Drachma note overprinted 1,000 Drachma.



(3) A more extreme example of this concept is the post WW I German hyper-inflation. Although one step higher than galloping inflation this example is given for expository purposes to emphasise the necessity, at times, of abruptly raising denominations of notes and often times utilising an older stock or not yet circulated stock of notes overprinted with higher valuations to economise on the money stock and to cope with higher price levels.

During the years 1922 and 1923, as is well known by students of German paper currency, the currency in circulation hit astronomical figures. In this case there were issues of Reichsbank notes taken out of circulation or perhaps not yet placed in circulation which were overprinted with higher denominations to compensate for the abrupt spurts in the price index. These naturally circulated with the other normally issued higher denomination notes. Evidently this was also an economy move to cut the costs at the margin as much as possible and to keep the quantitative paper money supply in

manageable limits, which, for Germany at the time was quite a trick. Note below the specimen of the 1922 1,000 Mark note evidently overprinted in 1923 with a denomination of 1,000,000,000 Marks, a multiple of one-million times original face value.

(4) Another way a nation may experience a severe inflation and yet apparently have a somewhat steady flow of paper currency and on the "day after" have an apparently small amount of notes for study, at least to the numismatist, is the technique by the central banking authorities of overprinting older or not yet circulated issues in higher denominations as was pointed out in the previous examples or overprint and reissue notes with a new unit.

This latter factor is generally noted after a monetary reform. A new monetry unit or fraction thereof is overprinted on older notes probably as an economy measure to cut costs and perhaps keep the supply of currency in a manageable state. Generally, the central bank will issue new paper notes denoting the new monetary unit.

For example, the nation of Chile on January 1, 1960, replaced the old inflationary Peso unit with the new Escudo unit at a ratio of 1,000 old Pesos to one Escudo. This was overprinted on many of the older Chilean bank notes. Note the example of the old 100 Peso note with the new Escudo valuation overprinted.

It is realised that the above examples can be qualified and that there are other factors involved in various inflationary situations.

The examples were given as food for thought and perhaps a possible answer to the difficulty at times of obtaining specimens of paper currency.

Further research, especially empirical, would no doubt produce more substantial evidence.

IV

Before developing this section the writer would like to state that a debt of gratitude is owed to the following economists for their excellent studies in the field of money and banking: Dr. Milton Friedman, Dr. Phillip Cagan, Dr. Eugene Lerner, Dr. Richard Selden, and Dr. John Klein. Indeed without the background gained through a careful analysis of their various research materials the writer probably would not have been prompted to delve into monetary theory and inflation.

This section is a brief exposition of currency denomination and measurement of actual prices in an economy operating under repressed inflation, i.e. wage and price controls. Although the research paper was originally a contribution to economic literature it is believed that the specialist in inflation and the general numismatist will find it interesting reading.

Dr. John Klein's paper "Price-Level and Money-Denomination Movements" has developed the argument, with qualifications of course, that as actual prices increase, since one has to pay more for any given basket of goods, he writes larger checks and switches from lower- to higher-denomination currency holdings. Of course, his hypothesis was based generally on the assumption of an economy under government control, in this case Nazi Germany.

However, there is no reason why it cannot be applied, with modifications, to an open economy where the market place is the controller.

The example of Germany 1932–43 is given and as a visual aid Klein's table of currency denomination and wholesale prices is reproduced below.

AVERAGE DENOMINATION OF CURRENCY AND WHOLESALE PRICES GERMANY, 1932–43

	Average denomination of currency		**Official wholesale prices**
Year	Reichsmarks*	1938=100	1938=100
1932	2.42	109.5	91.3
1933	2.22	100.5	88.3
1934	2.12	95.9	93.2
1935	2.08	94.1	96.3
1936	2.08	94.1	98.5
1937	2.10	95.0	100.2
1938	2.21	100.0	100.0
1939	2.49	112.7	101.2
1940	2.66	120.4	104.1
1941	2.82	127.6	106.3
1942	3.41	154.3	108.2
1943	4.05	183.3	110.0

(*These figures were derived by adding figures for total value of circulating currency both at the end of the preceding year and for current year and then dividing this by the sum of the total pieces of money in circulation for both the end of the preceding year and the current year.)

The sources 1931–40, various issues of Verwaltungsbericht der Deutschen Reichsbank, 1931–41; 1941–43, Länderrat des Amerikanischen Besatzungsgebiets, Statistisches Handbuch von Deutschland, 1928–44 (Munich 1949).

The year 1938 was selected as base due to its being the beginning of repressed inflation in Germany. From this year onward Germany conformed to most of the characteristic features of repressed inflation: (a) full employment; (b) a relatively stable price index; (c) a rising stock of money; (d) a national income increasing at a slower rate than the stock of money and (e) price, wage, demand, production, etc. controls.

Klein goes on to point out that from 1934–38 the average denomination of currency and the official wholesale price index increased 4.3% and 7.3% respectively. From this time on the two diverged rapidly. By 1943 the average denomination of currency was 183% of its 1938 level, while officially measured prices were

110% of the 1938 level. The divergence evidently was a discrepancy between the actual and the officially measured price levels.

It was pointed out that:

(1) Apparently the German public substituted higher-priced, better quality goods and/or similarly priced, quality deteriorated products for the items measured by the official wholesale price index.

(2) An alternative explanation is that the German public switched to high denomination currency in order to engage in black market activity which would also, however, be carried on at substantially higher than officially controlled prices.

In Section III of Klein's paper, Limitations to the Hypothesis, he puts forth a theoretical example with necessary qualifications.

Out of this Section II, part A Case A and B have been extracted.

"The degree to which the measure proposed here will reflect actual price change is dependent upon certain conditions. Among these are: (1) The degree to which denominations of currency are continuous; (2) The extent of real income change; (3) Velocity; (4) Relative prices; (5) The ratio of currency to deposit transactions, and (6) The willingness of the supplier of currency to furnish the denominations needed. . . ." The last condition is generally not a problem in countries with a managed currency system.

A. Discrete versus Continuous Denominations of Currency.

"Assume no change in conditions (2)–(5). Further assume that the supplier of currency is willing to furnish cash in the desired denominations. What will happen to the average denomination of money with a change in the level of prices, first with and then without continuous denominations of currency?

"Given the preceding conditions, prices and the average denomination of currency will move proportionately when there are continuous denominations of currency. Consider the following circumstances":

(1) With continuous denominations, higher prices, and no change in real income, "Economy of effort" argues that individuals want to purchase the same number of goods and services as before. using the same number of pieces of currency that they have become accustomed to using. A purchaser of goods and services therefore desires at least the same number of pieces of currency before and after a price-level change.

(2) "Experience" has also taught the purchaser that he needs a given number of pieces of currency of a particular denomination to carry on a given percentage of the value of his total transactions in certain goods and services and that other denominations are

required to carry on the remainder of his transactions. He therefore will normally expect to have a certain percentage of the total value of his currency holdings in each of the varying denominations. Let us therefore assume for illustrative purposes that he has twenty pieces of currency and carries 50% of his currency holdings in a \$6.25 denomination and the remainder in \$25 notes. If the total value of currency is \$200.00, then the situation is that indicated in case A.

Case A

Continuous denominations before price change

\$6.25 (value of individual pieces of currency) X16	(No. of pieces)	\$100.00
\$25.00 (value of individual pieces of currency) X4	(No. of pieces)	\$100.00
	Total Value	\$200.00

Average denomination of currency ... \$10.00

Here we see that under the restrictive conditions given, the average denomination of currency is \$10.00. But what happens if the price level doubles? Under the given assumptions the currency outstanding will double. The total value will be \$400.00. Then the situation is represented in case B.

Case B

Continuous denominations after price-doubling

\$12.50 (value of individual pieces of currency) X16	(No. of pieces)	\$200.00
\$50.00 (value of individual pieces of currency) X4	(No. of pieces)	\$200.00
	Total Value	\$400.00

Average denomination of currency ... \$20.00

Hence, the average denomination of currency will be \$20.00. Both the price level and the average denomination of currency have thus moved in the same direction.

"Now drop the assumption that denominations are continuous. Assume instead that they are discrete, that prices have doubled and that there are only notes of \$6.25 and \$25.00 being issued. The two circumstances listed in the preceding paragraph cannot be satisfied. If circumstance (1) is satisfied, the average denomination of currency will double. That is, to purchase the same basket of goods as before the price rise, \$400.00 in payments must be made. The individual, either consciously or unconsciously, wants to continue to use only twenty bills. Thus the average denomination of currency may double, more of one discrete denomination and less of the other being used than before. But this will mean that the 50–50 division of the value of total currency

among the two denominations, which is circumstance (2), can no longer be maintained. Then the number of outstanding bills must double. The average denomination of currency will then remain the same. Clearly with discrete denominations, the "Economy of effort" and "Experience" conditions are not compatible with one another. The most that can be said is that, after a price rise, one will hold more bills than before but not so many as to keep the average denomination of currency the same.

"What relation, then, given discrete denominations, do price-level and average-denomination-of-currency changes bear to each other? One would expect that, with a rise in the price level, individuals would at first hold only a few additional higher-denomination pieces of currency. Here, then, the average denomination of currency would tend to lag behind a rise in the price level. Later, however, as the expectation of a permanently higher price level develops, people may decide to shift out of their low-denomination currency. Hence the rise in the average denomination of currency may even be greater than the rise in the price level. The situation would be the reverse for a drop in the price level. If, therefore, one had statistics on actual price movements over short periods of time and more complete figures on the distribution of currency among the various denominations that are presently available, it might be found that the average denomination of currency moves in a lag-and-spurt, pattern relative to price-level changes."

Indeed Klein has emphasised an interesting concept.

This example could be applicable, with qualifications, to the concept of a galloping inflation. In general if the controls were removed from the German economy at the time (1938–44) it is boldly asserted that the psychology of the situation plus the increasing additions to the German money supply could have produced a near-galloping inflation. This was probably realised at the time by German officials in the Reich Ministry of Economics and the Reichsbank, therefore the controls while Germany developed her industry in a short period of time full steam ahead. As a matter of fact the German money supply increased about four times (400% of its 1938 level) by the year 1944. This together with the supply and demand situation, absence of some goods and overall large aggregate demand, would have produced a serious inflationary problem if controls, repressed inflation, had not been in effect. As Klein pointed out, the black market reflected a large demand for rationed and legally unobtainable goods in its prices which were considerably higher than the official German indexes.

Dr. Klein has produced a fine work which, with modifications, could apply to the writer's thesis that some nations may experience a severe, type (2), inflation but yet have issued approximately a similar quantity of paper currency as a nation which has gone through a somewhat milder inflation, i.e. the early stages of

a galloping inflation with an abrupt ending and monetary reform. Of course the severity would be measured by X amount of both depreciated units in terms of a relatively stable base such as Pound Sterling or Dollars.

The factor here, as pointed out in Section III, being that the denominations of some notes are raised or overprinted in larger valuations on the circulating paper media, thus facilitating trade and acting as a compensation for the higher price index.

This brief four section paper was researched and published with the general numismatist and especially paper currency specialist in mind. It is hoped that perhaps the ideas expressed in this paper may prod students of numismatics to do further research in this field.

Below are significant references.

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FARE TICKET CURRENCY

by Victor Deloe

During the nineteenth century many American railroads issued paper money; but the most interesting was that of two South Carolina railroads. The South Carolina Railroad Company and the Charlotte, Columbia and Augusta Railroad Company, in 1873, circulated fare tickets, beautifully engraved by the American Banknote Company with colourful vignettes and ornate reverses.

These tickets were accepted by merchants and bankers in transactions and their size and fine engraving indicate that they were intended to be used as money. The question is: Were the two issues accepted as equal or was a ticket of one company worth more than a similar ticket of the other company? The South Carolina R.R. two fare states that it is "Good for the fare of two passengers twenty-five miles" while the C.C. and A. two fare is "Good for the fare of two passengers twenty miles". This would seem to indicate that the second assumption is correct; however, a difference in rates on the two roads could have made their cash value equal.

Most writers attribute the use of fare denominations to a South Carolina law prohibiting anyone other than the Bank of the State of South Carolina from issuing currency notes. I feel that this only partially explains their use. There was a nation-wide panic and depression beginning in 1873 and lasting several years. As a result of the accompanying shortage of money, these notes would be easier to redeem in fares than in coin or national currency and would also help alleviate the shorter. If my thoughts are correct these two issues would be emergency money similar to the various issues of the depression of the 1930's.

SOUTH CAROLINA RAILROAD

All are dated July 1st, 1873

1 Fare Locomotive at top left, seated woman at bottom right. Colour green.

2 Fare Three men loading cotton on a horse-drawn cart in centre, "2" on each end. Colour green.

The above notes are fairly common, all the others are rare.

10 Fare Two women seated on a cotton bale in centre. Colours brown and black.

20 Fare Horses pulling cartload of cotton at left, dock scene at right. Colours brown and black.

CHARLOTTE COLUMBIA AND AUGUSTA RAILROAD

All are dated October 1st, 1873

1 Fare Train in centre. Colours black and grey.

2 Fare Dog's head in centre, a train at each end. Colours black and grey.

5 Fare Train in centre. Colours black and grey.

10 Fare Locomotive in centre. Colours black and grey.

Descriptions of notes not in my collection were taken from: South Carolina Obsolete Notes, by Austin M. Sheheen, Jr.

LATVIAN PAPER MONEY

by Dr. E. GRIBANOV
(U.S.S.R.)

The history of Latvia from the First World War up to 1940 can be traced from a study of the paper currency of that period.

During the First World War Riga became a frontal town and part of Latvia was under German occupation. As a result of a severe disruption in the currency circulation many towns issued their own paper money. In 1915 the Town Council of Libava (Liyepaya) issued two new types of currency—exchange-money and promissory notes. The council was obliged to repay the promissory receipt immediately the war ended. Three years later the same kind of note was issued but the printing was different. The town council of Vindava (Ventspils) issued promissory receipts with the same text as the Libava ones, but these notes differed in the variations in type on the reverse side.

The greatest number of promissory receipts was issued by the authorities of the town of Mitava (Yelgava). Three issues appeared in 1915. The first issue of 12th August was on coloured paper, without watermarks, containing a text in black in Russian and German. Circulation of these notes had scarcely begun before they were replaced by a second issue, also on 12th August, this time in German and Latvian on white paper with watermarks. A third issue appeared on 20th October, 1915, and on 5th December, 1918, came a fourth from Mitava. A guarantee of these obligations for 400,000 roubles and the previously issued promissory notes for 600,000 roubles completely insured the property of the town for the sum of 1,593,000 roubles.

The text on the promissory notes varied. The first issue read: "The Mitava Town Council undertakes to meet payment of this promissory note upon termination of the war", followed by the second and third issues: "The Mitava Town Council undertakes to meet payment of this promissory note within six months of a peace treaty", and on the fourth: "The town Council of Yelgava undertakes to meet payment of this promissory note within six months of a General Armistice".

Often the second and third issues bore the imprint of the rate of exchange in German: "2 Marks=1 Rouble". Up to 1923 75 copies of the Mitava notes appeared, with variations on the four issues. In March, 1917, a month after the outbreak of the Revolution, the Rigan Soviet of Deputies was formed. By

November of that year Soviet rule had been established in the unoccupied Latvian districts of Valsk, Valmirsk and Tsesiss. On 3rd September, however, the Germans took Riga, and by February, 1918, the whole of Latvia was under enemy occupation. On 18th November Prime Minister Ulmanis set up a bourgeois government which met with a public demonstration. Then lawyer P. I. Stuchka set up the Provisional Soviet Government of Latvia, whereupon practically the whole of Latvia become Soviet and Ulmanis' government fled to Liyepaya.

The paper-money of Riga at this time bore the image of a coat-of-arms of a hammer and sickle on a red star, on white paper with this text in Latvian: "The Rigan Soviet of Deputies. Exchange Note. This Exchange Note represents proof of legal payment and is valid up to 1st January, 1920 in the city of Riga and surrounding region." On the reverse side was written: "Anyone forging notes or circulating counterfeit notes will be called to account before a revolutionary tribunal and punished by the highest means of punishment." (Photo 1.)

The Executive Committee of the Soviet of Deputies of the town of Tsessis issued notes which pointed out that they were "acceptable in all institutes and shops in the town of Tsessis on a par with other notes up to 15th March, 1919. Any person forging notes will be shot". The Tsessis notes bore two type variations.

On 22nd May, 1919, the bourgeois government took over in Riga. The government issued notes which read: "This State Treasury Note is guaranteed the absolute property of the State. For forging notes, or hoarding and circulating them, the penalty will be deprivation of all rights and sentence to forced labour for a period up to twelve years". There followed a translation of the text in German. In Mitava, on 10th October, 1919, Col. Avalov-Bermondt of the Western Voluntary Army printed his own notes of one-, five- and ten-rouble denominations with impressed stamp, and then the same denominations with no stamp as the stamping-machine was burnt out. Later, on the reverse side of Avalov-Bermondt's underprinted notes the Latvian government printed postage stamps in aid of the Red Cross Society. (Photos 2a, 2b.)

In 1920 exchange notes were issued in small sizes of 5, 10, 25 and 50 kopecks. The Latvian bank issued temporary notes of 10 lats (1922), 100 lats (1923), 20 and 50 lats (1924). In 1925 10 and 20 lat notes appeared, in 1926 5 lats, in 1928 25 lats, in 1929 500 lats, in 1933 10 lats and in 1934 50 lats. Later the bank issued 20 lat notes (1935–36), 10 lats (1937–40), 25 lats (1938) and 100 lats (19399). One of the last issues was the 5 lat note of 1940. Some of these bore the signatures of Ministers of Finance.

On 21st July, 1940, the representative assembly (seim) decided on the restoration of Soviet rule in Latvia, and on 5th August Latvia became a Soviet Socialist Republic within the U.S.S.R.

DATA NEEDED ON JAMAICAN CURRENCY

JEROME H. REMICK
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Ray Bryne and myself are just finishing a booklet on Jamaican Coinage and Currency. I badly need any data that any collector can supply on Jamaican currency. I also need specimens of each note for photography.

Mr. George Sten has supplied me with a listing of some 55 notes issued for Jamaica. He has indicated there may be more.

I have the 5 and 10 shilling notes and 1, 5 and 10 pound notes showing Queen Elizabeth II and "ISSUED UNDER THE BANK OF JAMAICA LAW 1960". These are the current notes now in circulation.

Please let me know what Jamaican notes other than the 1960 notes mentioned above you have in your collection. Please let me know the condition of each note. By knowing the condition, I shall be better able to make a more accurate priced catalogue. Please specify the date of each note.

Even though the first edition of our catalogue may be in print when you read this note, please send your data for we will include it in the second edition.

Please, everybody that has Jamaican notes or any data about them, write me. Please do not send the notes.

This catalogue, by the way, will be published by Mr. Al Almanzar, Milam Building, 115 West Travis Street, San Antonio, Texas, U.S.A., sometime this summer at \$1.50 (11 shillings) or less. Neither author will take any royalties of payment for his work so the price will be kept as low as possible. The catalogue will include a complete listing of the early counter-stamped coins, the coinage from 1869–1966, and the tokens. Prices and mint figures will be given

JERRY REMICK.

The President's Corner

It is now over two years since I started the plan of giving a number of Bank Notes to all new members who joined our Society. I still have to send off about 12 parcels of notes to the last few members but—I have run short of material to send. So once again, fellows, how about helping? I am sure you would like to see our membership list grow a bit more. All I need is twenty (or more if you can spare them) from each of you.

I want to thank those members who have helped in the past. Some sent 200 while others only a couple but every note helped and our secretary has all the letters of thanks from new members upon receipt of the notes.

Here, I would like to mention that, through certain articles published in the Numismatic News, The Canadian Coin Magazine and the Coin World, we, the International Bank Note Society have enrolled at least 25 new members. On behalf of us all I say thank you to those kind folks responsible for publishing the articles.

We are still getting new members, each day we receive letters asking about our Bank Note collecting. I enrolled 65 new members during the year May, 1965—April, 1966, so proving that there are many people keen to join if only they are approached in some way and know we exist! Now folks I intend this year to top that mark and I am going to give a shield to the member who, at the end of April, 1967 has enrolled the most new members during this year. This shield will be floating until some-one wins it three years in succession. And my sincere hope is that it will come to be the most coverted possession this Society has. I, as President and Donator of this shield will of course be excluded from winning it but that will note stop me collecting new members if only as a challenge to the rest of you. More about this in my next letter but start looking around folks and good luck to you all.

Our editor is asking for articles on Bank Notes, what about it members. Just an outline of your story is enough for our editor; details listed numerically if you feel shy as to your writing abilities. Many of us hungrily devour the information given in each edition and the more information they contain, the better.

Finally, my wife, Valerie and I hope to meet many of you personally at the A.N.A. Convention in August which we shall be attending. Unfortunately this will be a rather hurried trip so we shall not be visiting any of our friends as we did two years ago. As much as we love to, we cannot manage to stay more than two weeks in the U.S.A.